

NWSRFS PROCESSED DATA BASE

File Type Code: FPDB

Description

The NWSRFS Processed Data Base (PDB) is described in Section IX.4.4.

Applications

The NWSRFS PDB can only be used by Operational Forecast System programs. The PDB cannot be used by Calibration System programs.

The NWSRFS PDB can be used for INPUT, OUTPUT and UPDATE time series.

The PDB read/write routines can process times series with more than one value per time interval.

External Location Information

The basic external location information for the PDB is the same for all types of time series (i.e. INPUT , OUTPUT and UPDATE). For OUTPUT and UPDATE time series, latitude, longitude and descriptive information must also be specified because the Forecast Component creates or updates PDB time series header information for time series that it writes.

The input to define the external location information is as follows:

<u>Columns</u>	<u>Format</u>	<u>Contents</u>
1-8	A8	Identifier for the time series in the PDB. This does not have to be the same as the Forecast Component internal identifier for the time series.
12-15	3X,A4	Data type code for the time series on the PDB. This does not have to be the same as the Forecast Component internal data type code, but must have the same dimension, time scale and number of values per time interval as the Forecast Component data type code. Also the PDB data type cannot contain missing values if missing values are not allowed for the data type used by the Forecast Component. See Section V.2.2 for information about data type codes.

The following information is needed for OUTPUT and UPDATE time series:

<u>Columns</u>	<u>Format</u>	<u>Contents</u>
16-25	F10.1	Latitude in degrees and decimal degrees (positive for north)
26-35	F10.1	Longitude in degrees and decimal degrees (positive for west)
41-60	5X,A20	Descriptive information

For INPUT time series, the time interval requested by the Forecast Component must be an even multiple of the time interval of the time series on the PDB.

For OUTPUT and UPDATE time series, the time interval must be the same as the time interval of the time series on the PDB.

Error Messages

The following error messages can be generated when using the NWSRFS PDB.

1. ****WARNING**** THE EXTERNAL DATA TYPE (XXXX) IS NOT THE SAME AS THE FORECAST COMPONENT DATA TYPE (XXXX).

Action: Take note of difference.

2. ****ERROR**** XXXX IS NOT AN ALLOWABLE DATA TYPE CODE FOR THE FORECAST COMPONENT.

Action: See Section V.2.2 for allowable data type codes.

3. ****ERROR**** THE DIMENSION CODE (XXXX) FOR XXXX IS NOT THE SAME AS THE DIMENSION CODE (XXXX) FOR XXXX, THUS UNITS CONVERSION IS NOT POSSIBLE.

Action: Make sure the dimension of both data type codes are the same.

4. ****ERROR**** THE NUMBER OF VALUES PER TIME INTERVAL XX FOR XXXX IS NOT THE SAME AS THE NUMBER XX FOR XXXX. THIS IS NOT ALLOWED.

Action: Make sure the number of values per time interval are the same for both data type codes.

5. ****ERROR**** DATA TYPE XXXX CAN CONTAIN MISSING VALUES, WHEREAS DATA TYPE XXXX CANNOT. THIS IS NOT ALLOWED.

Action: If the Forecast Component data type cannot contain missing values, the data type of PDB time series must also not allow missing values.

6. ****ERROR**** THE TIME SCALE (XXXX) FOR XXXX IS NOT THE SAME AS THE TIME SCALE (XXXX) FOR XXXX. THIS IS NOT ALLOWED.

Action: Make sure the time scales of the two data type codes are the same.

7. **WARNING** TIME SERIES (XXXXXXXX--XXXX) DOES NOT EXIST ON THE PROCESSED DATA BASE. ALL TIME SERIES MUST EXIST BEFORE A SEGMENT CAN BE EXECUTED OR ADDED TO A FORECAST GROUP.

Action: Make sure the time series is created on the PDB before adding the segment to a forecast group or executing a single segment run.

8. **ERROR** THE TIME INTERVAL OF THE TIME SERIES (XX HOURS) IS NOT A MULTIPLE OF THE TIME INTERVAL (XX HOURS) ON THE PDB. IT MUST BE A MULTIPLE FOR AN INPUT TIME SERIES.

Action: Change the time interval of either the Forecast Component time series or the PDB time series.

9. **ERROR** THE TIME INTERVAL OF THE TIME SERIES (XX HOURS) IS NOT THE SAME AS THE TIME INTERVAL (XX HOURS) ON THE PDB. IT MUST BE THE SAME FOR OUTPUT AND UPDATE TIME SERIES.

Action: Make sure the time intervals are the same.

10. **ERROR** TIME SERIES WITH A XXXX DATA TYPE CODE CANNOT BE WRITTEN TO THE PDB BY THE FORECAST COMPONENT. CHECK PDB DIRECTORY FOR LIST OF DATA TYPE CODES THAT CAN BE WRITTEN.

Action: Change data type to a code that can be written by the Forecast Component.

11. **WARNING** PDB HEADER FOR TIME SERIES (XXXXXXXX-XXXX) COULD NOT BE UPDATED.

Action: Check PDB error message for reason.

12. **WARNING** TIME SERIES (XXXXXXXX-XXXX) COULD NOT BE CREATED DUE TO R/W ERROR.

Action: Check PDB error message for reason.

13. **WARNING** LATITUDE, LONGITUDE, AND/OR DESCRIPTION NOT DEFINED FOR TIME SERIES (XXXXXXXX-XXXX).

Action: Check External Location Information portion of this Section for information on how to enter these values.